



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

C3-4-4KA
Job Sheet 183583



Part No: C3-4-4KA

Job Qty: 13 ea

Part Name: Keeperless Load Beam Assembly - C3 Hook



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 9/20/18

Job Tracking No:

Due Date: 10/5/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG C3-4-4A/C3-4-4KA Rev 10 IPP Rev A 18.03.02 New issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	13 Ea	10/5/18	10/5/18	0.00	0.00	Start Up Small Fab-4		
100	Small Fab	13 pcs	10/5/18	10/5/18	0.00	1.63	Small Fab-9		
105	Rework	13 pcs	10/5/18	10/5/18	0.00	0.00	Mill Conv 1		
110	QC	13 pcs	10/5/18	10/5/18	0.00	0.00	QC5		
130	Outsource	13 pcs	10/5/18	10/5/18			GRO002-VC	10	
140	Packaging	13 pcs	10/5/18	10/5/18	0.00	0.00	Packaging2		
150	QC	13 pcs	10/5/18	10/5/18	0.00	0.00	QC6		
160	Packaging	13 pcs	10/5/18	10/5/18	0.00	0.00	Packaging3-2		
170	QC21-SA	13 Ea	10/5/18	10/5/18	0.00	0.00	QC21		

Part Op 100 - Assemble as per DWG.

Descriptions: 130 - Issue P/O to Groupe Altech: P/O 041166 -Nickel plate, QQ-N-290, Class 2, Grade C -Nickel Plate .0009-.0011 -Certificate of Conformity is required

160 - Identify and Stock

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
C3-4-2	Trunnion	13 Ea (1 ea)	90-Start up Operation	
C3-4-4K	Load Beam	13 Ea (1 ea)	90-Start up Operation	



Container No: S112143



Part: C3-4-4KA

Job No: 183583

Serial No/Batch: S112143

Revision: 10

Inspector:

Exp Date:

Instructions:

1270 ABERDEEN STREET
HAWKESBURY, ON K6A 1K7
CANADA
TEL : 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

ed	Inventory	Allocated
	25	0
	13	0

und.

Date: 09/20/18

Plex 9/20/18 3:19 PM Dart.lajeunesse.marie

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

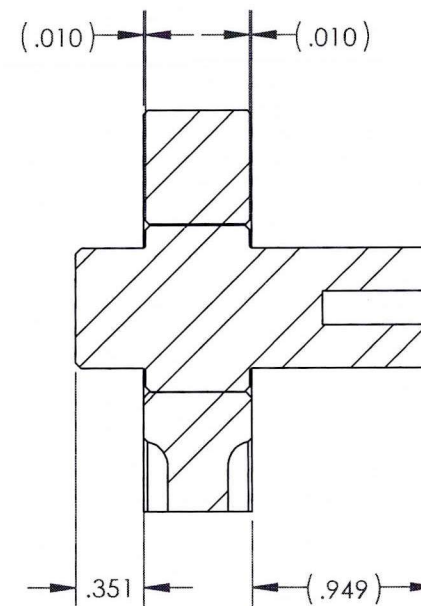
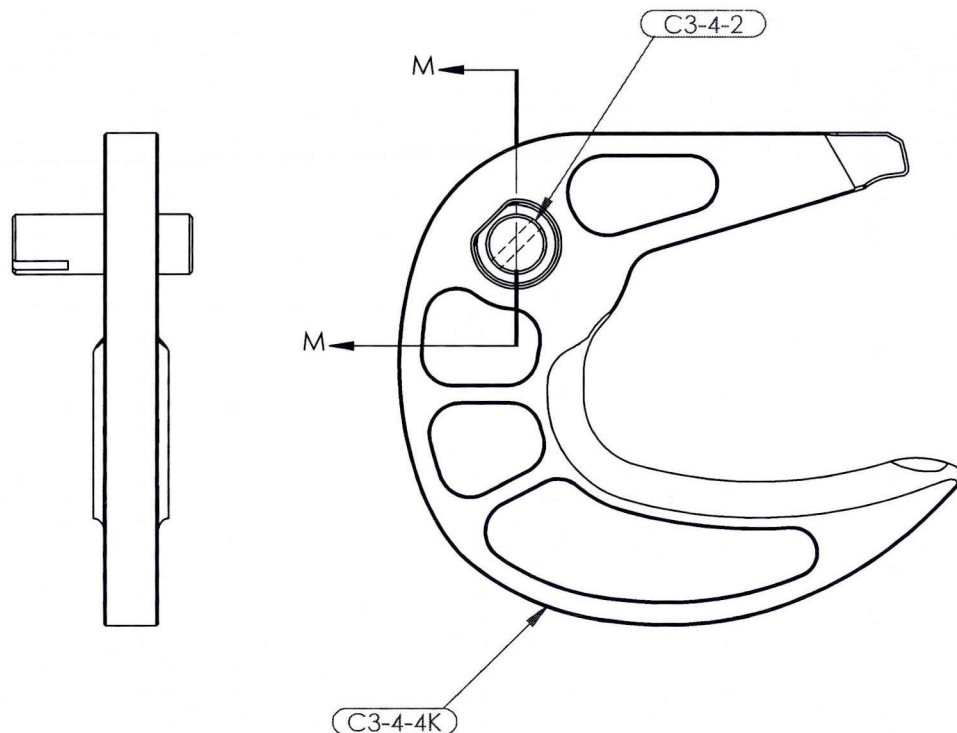
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER :					

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
9	15-0126	C3-4-4KA ADDED TO DRAWING FOR KEEPERLESS OPTION.	6/2/2015	RJC	JAG



SECTION M-M
SCALE 1 : 1

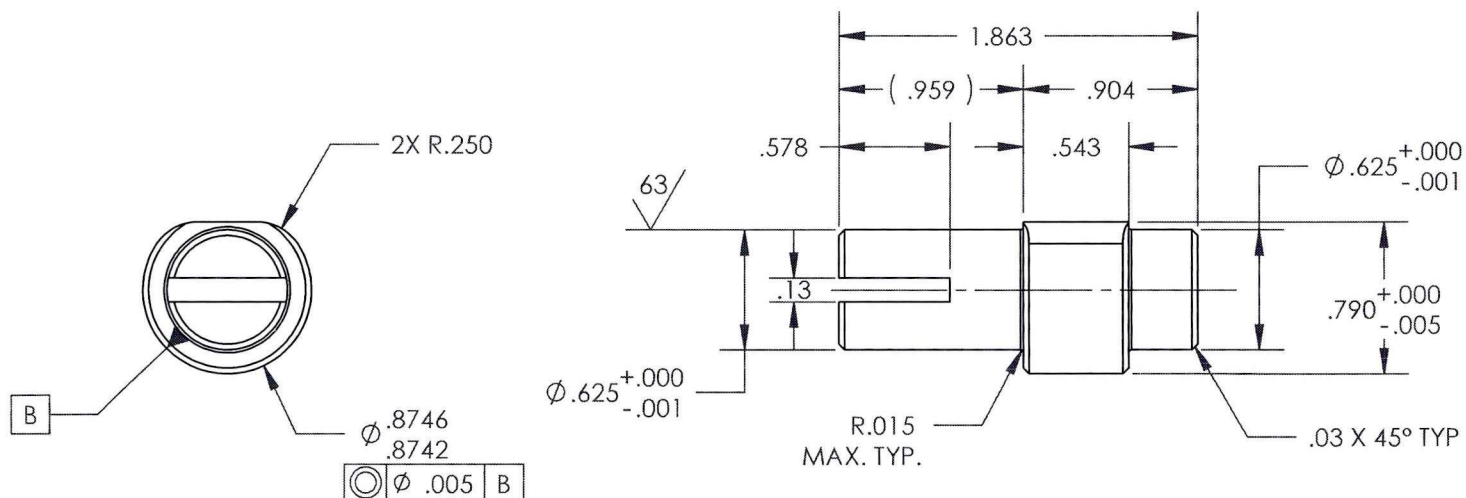
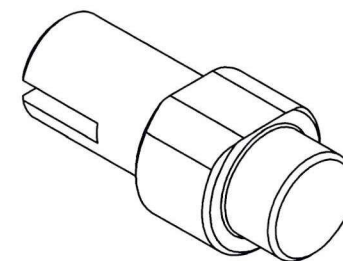
NOTE:
1. NICKLE PLATE .0009-.0011, BAKE AFTER PLATING.

C3-4-4KA
C3 KEEPERLESS LOAD BEAM ASSEMBLY

DART AEROSPACE	
TITLE C3 LOAD BEAM ASSEMBLIES	
DWG NO. C3-4-4A / C3-4-4KA	REV 10
MAT'L UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 5° .X ± .1	DRAWN BY: CLOUGH APPROVED <i>J. Gilbert</i> HEAT TREAT FINISH SEE NOTE 1 SPEC USED ON MODEL
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE 1:2	DATE 6/2/2015
SHEET 3 OF 6	

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
6		CH'D DIMENSIONS FROM R.4375 +.0000 -.0005. TO ϕ .8746 - .8742, CH'D TOLERANCE FOR ϕ .790 +/- .005 TO ϕ .790 +.000 / -.005	8/8/2012	RJC	SE
8	14-0106	ADDED BAG & LABEL NOTE	8/6/2014	DJN	RW
10	15-0198	C3-4-2 CORRECTED GD&T.	8/27/2015	DPD	JAG



NOTES:

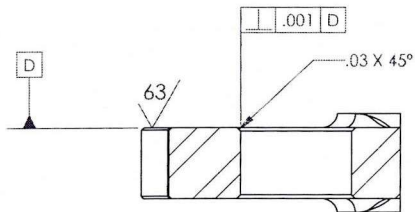
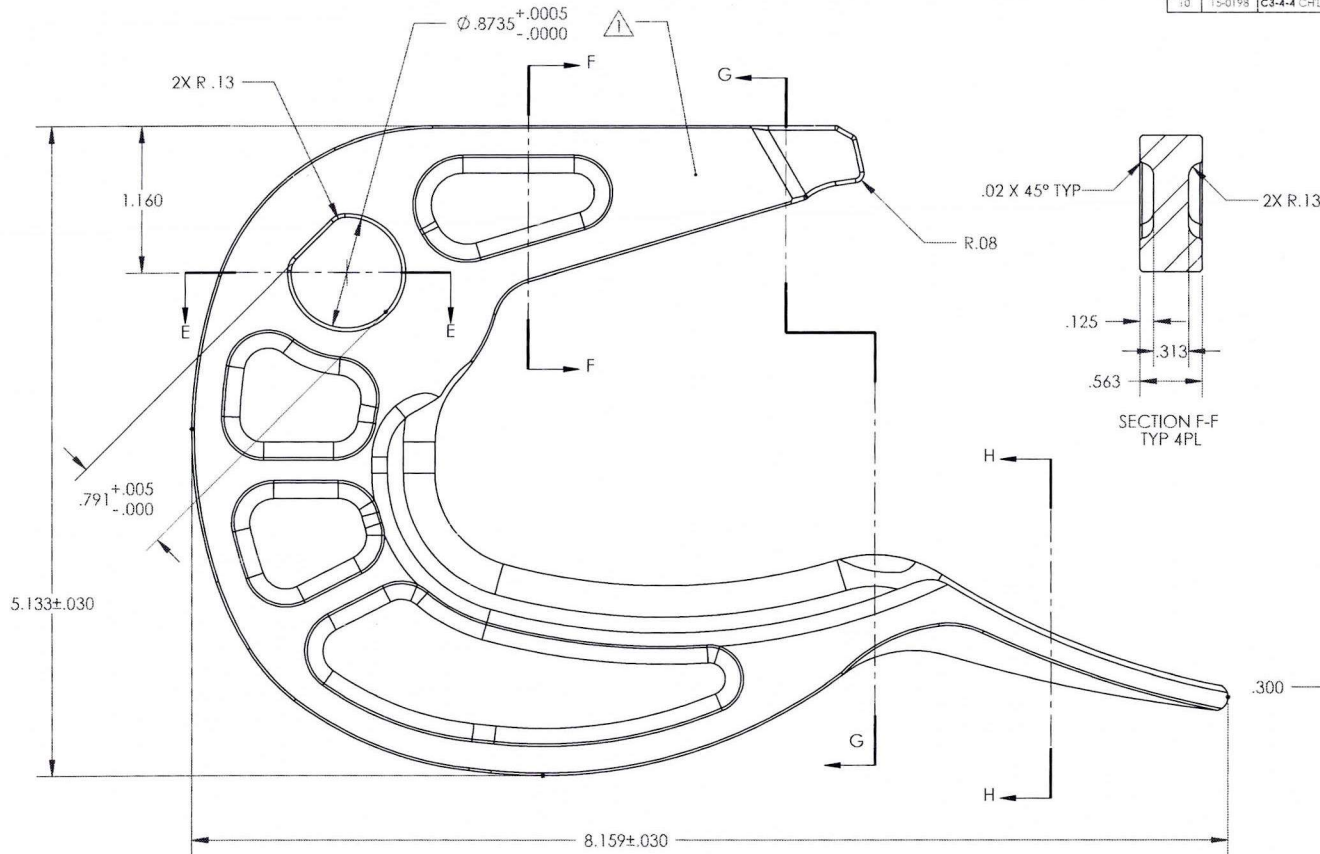
1. NICKEL PLATE AFTER PART HAS BEEN ASSEMBLED WITH LOAD BEAM C3-4-4.
2. BAG & LABEL WITH BATCH NUMBER.

DART AEROSPACE	
TITLE C3 LOAD BEAM ASSEMBLIES	
DWG NO. C3-4-4A / C3-4-4KA	REV 10
MAT'L 4140 Q&T / 4142 Q&T	DRAWN BY: APICAL
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED <i>D Weil</i>
.XXX $\pm$.005	HEAT
.XX $\pm$.01	TREAT
.X $\pm$.1	FINISH
1. BREAK ALL SHARP EDGES .015 X 45° OR .015R	SPEC
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	USED ON MODEL
SCALE 1:1	DATE 10/31/2001
SHEET 4 OF 6	

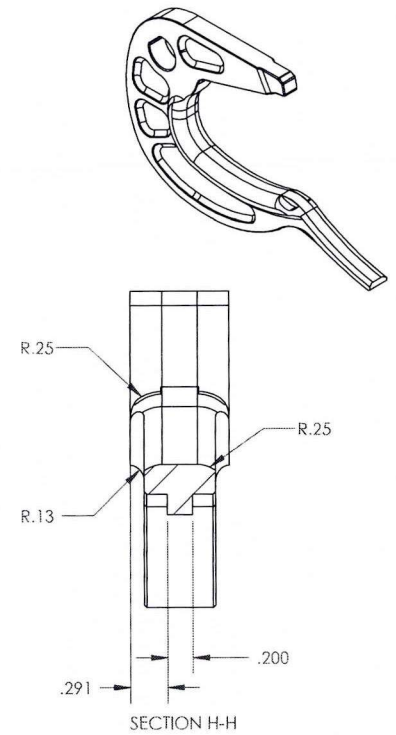
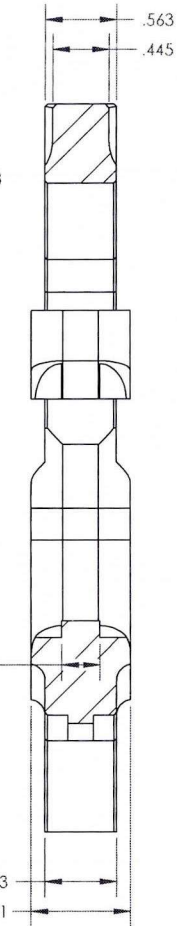
C3-4-2
TRUNNION

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REVISIONS					DATE	INITIAL	APPROVED
REV	ECR	DESCRIPTION					
6		CHD MATERIAL FROM 4343, CHD RADIUS FROM 2X R.095 TO 2X R.13, CHD FILLET RADIUS AT END OF LOAD BEAM FROM .063 TO .125.			8/8/2012	RJC	SE
8	14-0106	ADDED MACHINE ENGRAVE NOTE.			8/6/2014	DJH	RW
10	15-0198	C3-4-4 CHD DIMS WAS 8.16 ± 0.159 ± 0.030, WAS 5.13 ± 5.133 ± 0.030, DELETED DIM R.25.			8/27/2015	DPD	JAG



C3-4-4
LOAD BEAM

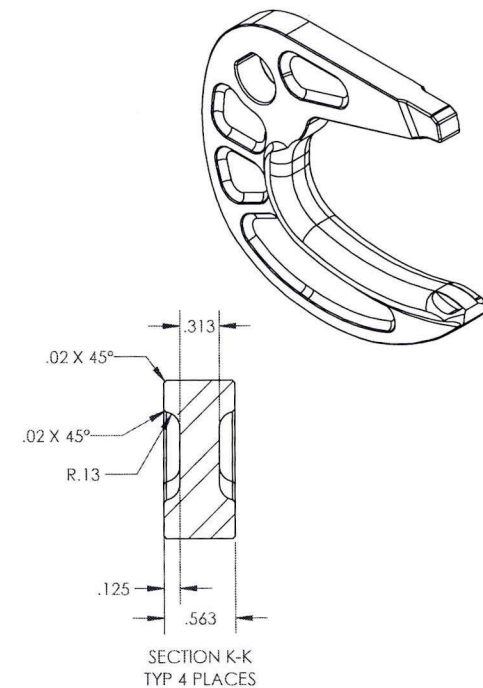
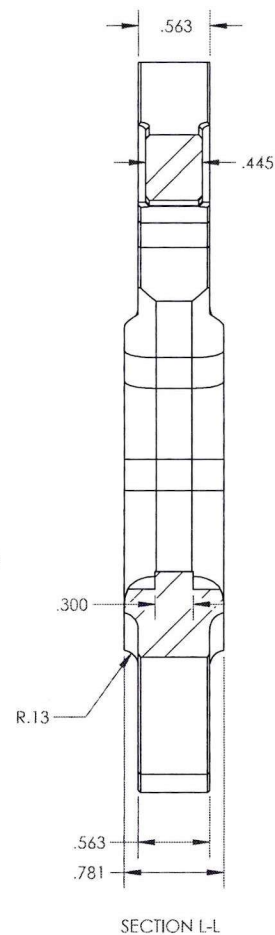
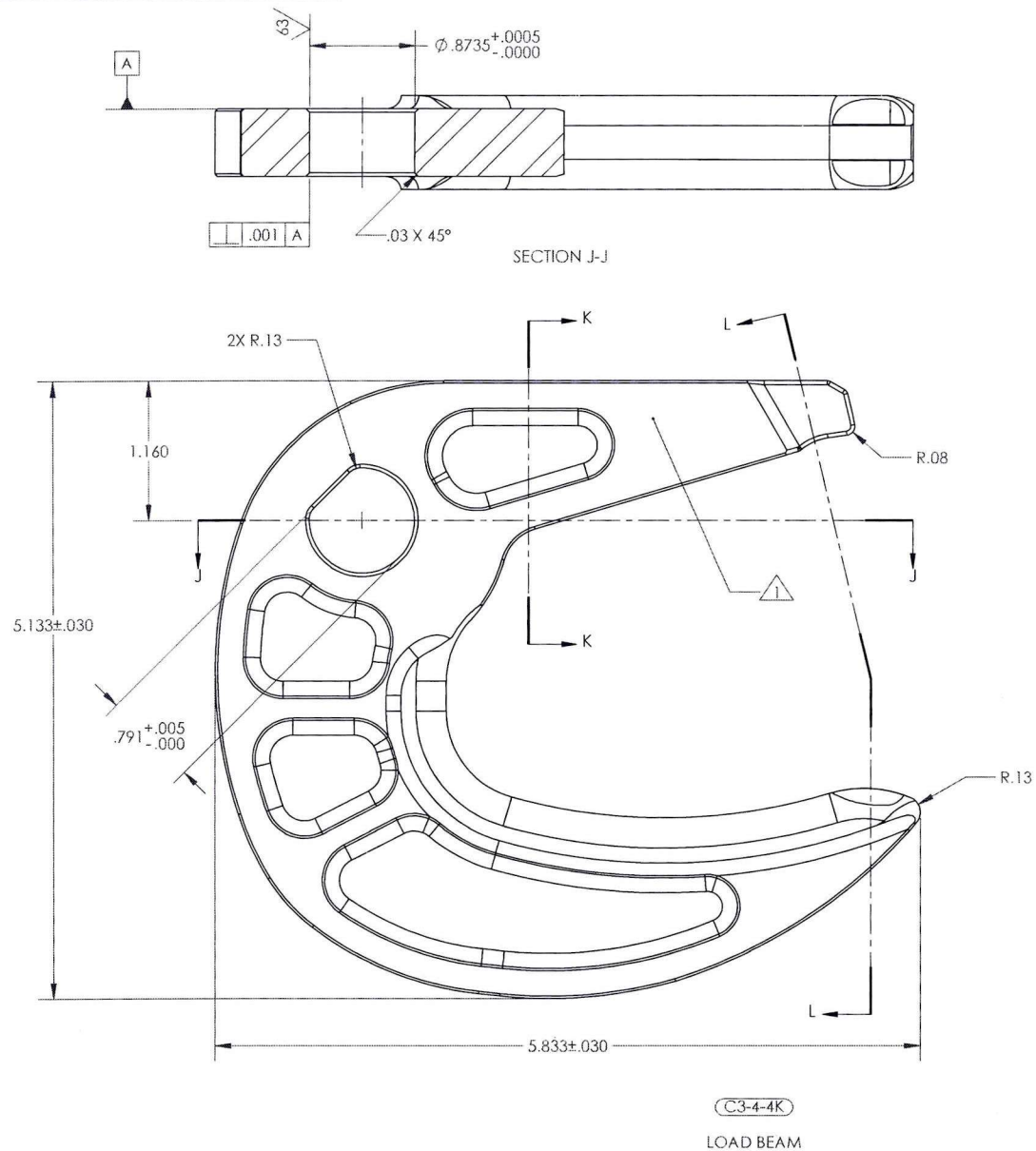


- NOTES:
1. MACHINE ENGRAVE BATCH NUMBER.
 2. NICKEL PLATE AFTER PART HAS BEEN ASSEMBLED WITH TRUNNION C3-4-2.
 3. USE DXF PROFILE FOR CONTOURS.

DART AEROSPACE	
TITLE C3 LOAD BEAM ASSEMBLIES	
DWG NO. C3-4-4A / C3-4-4KA	REV 10
MAT'L 4140/41402	DRAWN BY: APICAL
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED <i>D. Wed</i>
.XXX ± .005 .XX ± .01 .X ± .1	HEAT RC 53-56
FRACTIONS ± 1/8 ANGLES ± 5°	FINISH SPEC
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	USED ON MODEL
SCALE 1:1	DATE 10/31/2001
SHEET 5 OF 6	

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
9	15-0126	C3-4-4K ADDED TO DRAWING FOR KEELPERS OPTION.	6/2/2015	RJC	JAG
10	15-0198	C3-4-4K CHD DWS WAS 5.83315 3.833+0.00, WAS 5.133 IS 5.133+0.00, DELETED DIM R.25.	8/27/2015	DPD	JAG



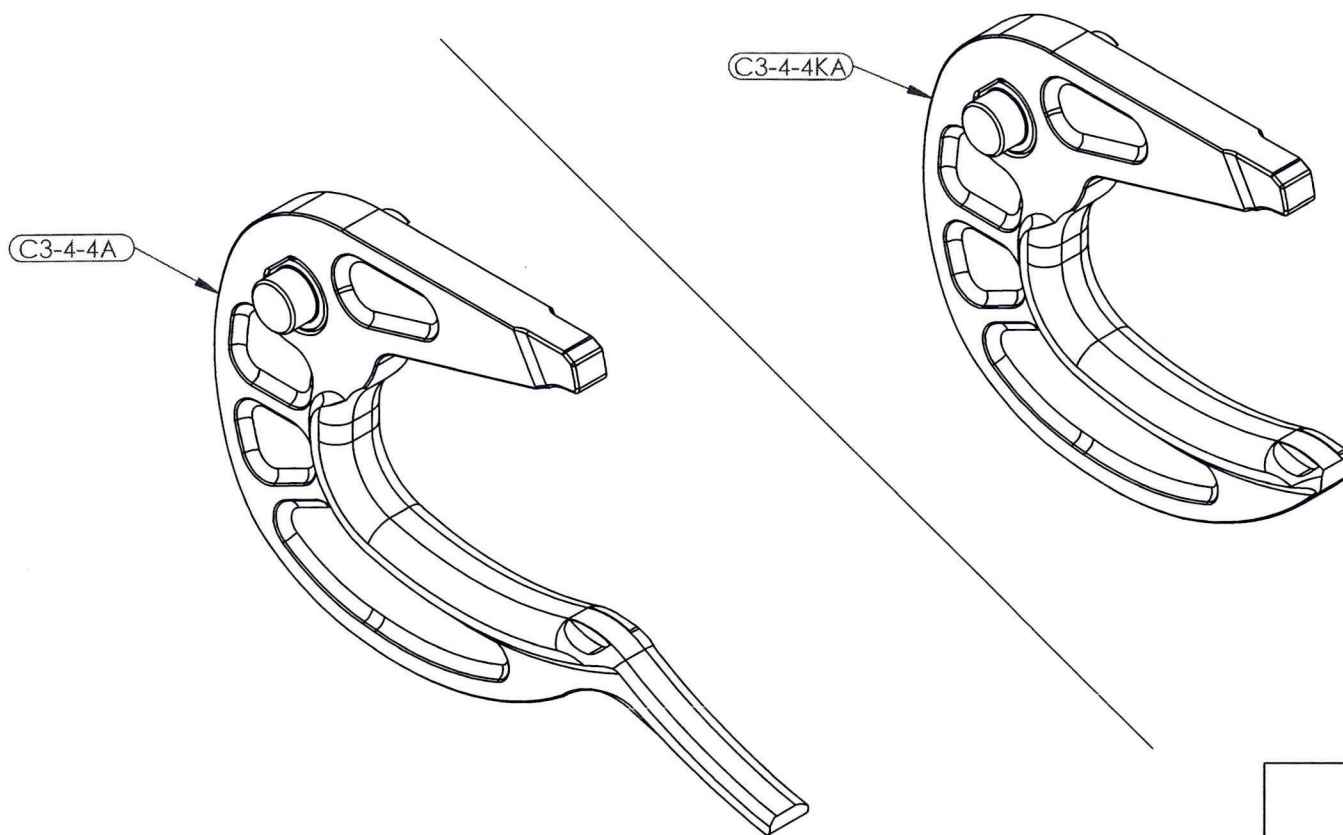
NOTES:

1. MACHINE ENGRAVE BATCH NUMBER.
2. NICKEL PLATE AFTER PART HAS BEEN ASSEMBLED WITH TRUNNION C3-4-2.
3. USE DXF PROFILE FOR PART CONTOURS.

	
TITLE C3 LOAD BEAM ASSEMBLIES	
DWG NO. C3-4-4A / C3-4-4KA	REV 10
MATL. 4140/4142	DRAWN BY: CLOUGH APPROVED: <i>J. Callahan</i> RC 53-56
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8" .X ± .01 ANGLES ± 1° .X ± .1	HEAT TREAT FINISH SPEC
1. BREAK ALL SHARP EDGES .015 x .45" OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE 1:1	DATE 6/2/2015 SHEET 6 OF 6

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
6		AS DRAWN BY APICAL	10/31/2011		
7		ADDED BAKE NOTE	12/9/2013	JAG	
8	14-0106	CH'D TITLE BLOCK WAS RED BARN IS DART. CH'D TOLERANCE NON-CRITICAL DIMENSIONS. C3-4-2 ADDED BAG & LABEL NOTE. C3-4-4 ADDED MACHINE ENGRAVE NOTE.	8/6/2014	DJN	RW
9	15-0126	C3-4-4KA, C3-4-4K ADDED TO DRAWING FOR KEEPERLESS OPTION. CH'D DWG NO. WAS C3-4-4A IS C3-4-4A / C3-4-4KA.	6/2/2015	RJC	JAG
10	15-0198	UPDATED TO NEW DRAFTING STANDARDS. C3-4-2 CORRECTED GD&T. C3-4-4 CH'D DIMS WAS 8.16 IS 8.159 ±.030, WAS 5.13 IS 5.133 ±.030. DELETED DIM R.25. C3-4-4K CH'D DIMS WAS 5.833 IS 5.833 ±.030, WAS 5.133 IS 5.133 ±.030. DELETED DIM R.25.	8/27/2015	DPD	JAG



ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
	X		C3-4-4A	1	LOAD BEAM ASSEMBLY			2
	1		C3-4-4		LOAD BEAM	4140/41402		5
1	1		C3-4-2		TRUNNION	4140 Q&T / 4142 Q&T		4
X			C3-4-4KA	1	C3 KEEPERLESS LOAD BEAM ASSEMBLY			3
1			C3-4-4K		LOAD BEAM	4140/4142		6
ASSY C-3-4-4KA	ASSY C-3-4-4A							

DART AEROSPACE	
TITLE C3 LOAD BEAM ASSEMBLIES	
DWG NO. C3-4-4A / C3-4-4KA	REV 10
MAT'L UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 .XX ± .01 .X ± .1 FRACTIONS ± 1/8 ANGLES ± 5°	DRAWN BY: CLOUGH APPROVED: <i>J. Gilbert</i> HEAT TREAT FINISH SPEC USED ON MODEL
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE 1:2	DATE 6/2/2015
SHEET 1 OF 6	



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO041166**

Supplier: GRO002-VC
Group Altech
2455 Halpern
St Laurent
QC
H4S 1N9 Canada
Phone: 514-335-3666
Fax: 514-335-3868

PO No: PO041166
PO Date: 9/27/18
Due Date: 10/5/18
Purchase Order Revision:
Revision Date:
Ship-To Contact: Tsimiklis, ChrisoulaPhone:

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pymt Terms: Net 30
Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	183583	C3-4-4KA	Keeperless Load Beam Assembly - C3 Hook -Issue P/O to Groupe Altech: P/O _____ -Nickel plate, QQ-N-290, Class 2, Grade C -Nickel Plate .0009-.0011 -Certificate of Conformity is required	Firmed	-	10/5/18	13 pcs	0 pcs	13 pcs	\$9.2307692/pcs	\$120.00
Grand Total:											\$120.00

Order Notes

Procurement Quality Clauses
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retension of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 9/27/18 8:43 AM dart.tsimiklis.chrisoula



Certificat de Conformité / Certificate of Compliance

(013092-1)

2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
 Tel: 514-335-3666 Fax: 514-335-3868
 www.groupaltech.com

Bon de Livraison / Packing Slip

013092 - 1

Livré à / Ship to

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 Tel.: 613-632-5200 Fax.:

Client / Customer:

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 BUYER:

Date expédition Ship date		Créé Par Generated By	Transport / No de Compte Courier / Acc. No.	Bon de commande Client Customer Purchase Order No.				
02-Oct-2018		Aman		PO041166 ✓				
#Ligne Line#	No. de Série / # Pièce Part Number / Line Item Details Job # / Ref #	Description pièce(s)	CATG. U/M	Comm. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap/	À venir/ Back Order
1	C3-4-4KA ✓ Rev.	C3-4-4KA NICKEL PLATE PER QQ-N-290 CLASS 2 GRADE C 0.0009-0.0011 THICK	E-NICKEL STEEL CH	13 ✓	13	0	0	0

 BAS
 38
 9-89

Notes Additionnelles / Additional Notes

Epaisseur réelle
Actual Thickness
Inspecteur Qualité
Quality Inspector
Réçu par
Received By

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.
 Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.
 Our financial and legal responsibility will not be higher than the amount of invoice.